



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,671	09/08/2003	Deborah A. Langer	3217	2146

7590 10/31/2006

THE LUBRIZOL CORPORATION

Patent Administrator
Mail Drop 022B
29400 Lakeland Boulevard
Wickliffe, OH 44092-2298

EXAMINER

POULOS, SANDRA K

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,671

Applicant(s)

LANGER ET AL.

Examiner

Sandra K. Poulos

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections and objections except for those described below are overcome by applicant's amendment filed 8/22/06.

Applicant's statement of common ownership for US Patent No. 6,933,263 is acknowledged.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Upon consideration of applicant's arguments, the rejections set forth in the action mailed 2/01/06 have been reconsidered and the following new grounds of rejection have been set forth below. Accordingly, the following action is **NON-FINAL**.

Claim Objections

2. Claim 17 is objected to because of the following informalities: Claim 17 refers to "emulsifiers" (plural), however, claim 16 which recites "emulsifier" (singular).

Claims 2 and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

When the component is chosen to be a thickener, claim 1 is not further limited because it already contains thickeners. Claim 21 is not further limited to the extent that it is still a composition claim, and not, for instance, a claim drawn to a method of using. Thus the composition is not being further limited in claim 21.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 12 now recites "functionalized olefin copolymers, reaction products with maleic anhydride" and "functionalized ethylene/propylene/diene terpolymers, reaction products with maleic anhydride", which are amended from "functionalized olefin copolymers, such as reaction products with maleic anhydride" and "functionalized ethylene/propylene/diene terpolymers, such as reaction products with maleic anhydride". It is the examiner's position that these phrases fails to satisfy the written description requirement of 35 USC 112, first paragraph since there does not appear to be a written description requirement of the phrase "reaction products with maleic anhydride" by itself, there is only support for when it is with a functionalized olefin copolymer or ethylene/propylene/diene terpolymers in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. It is new

Art Unit: 1714

matter because applicant does not have support for all reaction products with maleic anhydride.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13, 15-22, and 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because the emulsifier is selected from the group consisting of (i) through (xi), but it is also recited that the emulsifier comprises a surfactant with an HLB of less than 9. It is unclear how the emulsifier can comprise other components when it has specifically been limited to (i) through (xi). Thus it is unclear if there is an additional emulsifier present (i.e. the surfactant, which is analogous to an emulsifier) and thus essentially two separate emulsifiers. Claim 25 further complicates the meaning by reciting "wherein the *emulsifier* has a HLB of 0 to 7". Examiner suggests rewriting to indicate that it is a composite emulsifier containing a first emulsifier/surfactant with the HLB of less than 9 and a second emulsifier selected from (i) through (xi).

Claim 22 is indefinite because it is unclear if there is one emulsifier and that emulsifier/surfactant must have an HLB of less than 9, or if there is two emulsifiers (one "emulsifier" and one "surfactant").

Claim 18 does not specify the molecular weight as number average or weight average. Applicant has support for number average MW in the specification, page 16.

Art Unit: 1714

Claim 1 is further indefinite for the phrase in (i) "including but not limited to...and the like" because it is unclear if those species are required.

Claim 3 is indefinite because the bounds of the viscosity range are unclear.

Claim 5 contains an improper Markush group with regard to the water soluble salts.

Claim 9 lacks full antecedent basis for the term "the oil soluble detergents". There is recited "oil soluble additives" and "detergents" but not oil soluble detergents as such.

The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon a rejected base claim.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1714

5. Claims 1-11, 19, 20-22, 24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,933,263. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

US 6,933,263 discloses mixing a major amount of water, a minor amount of water, at least on emulsifier, oil soluble additives, thickeners, and optionally water soluble additives and alcohol (claims 1-2). Claim 14 discloses that the emulsifier comprises a surfactant with an HLB of less than or equal to 9 and claims 15-17 disclose particular emulsifiers. Although these limitations are in dependent claims, it would have been obvious to one of ordinary skill in the art to look to the dependent claims and to incorporate the limitations therein to the main composition.

Claim Rejections - 35 USC § 102

6. Claims 1-2, 4-5, 16, 18, 19, 20, 22, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Pollack (US 2003/0019552).

The applied reference has a common inventor/assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Pollack discloses a water in oil emulsion composition containing an organic phase, an aqueous phase, and an emulsifying amount of an aliphatic hydrocarbyl group substituted succinic emulsifier composition (abstract). The organic phase is present in

Art Unit: 1714

an amount of 2 to 10% by weight and the aqueous phase is present from 90 to 98% by weight (para 52). The organic phase is a fuel hydrocarbon typically in the form of an oil or wax (para 56). The oils include natural oils and synthetic oils, esters of dicarboxylic acids, unrefined, refined, and rerefined oils (para 53-61). The emulsifier is present in a range of 4 to 40% (para 52, claim 21). The emulsifier is prepared by reacting a substituted succinic acylating agent with an appropriate amine (para 74-174). In a preferred embodiment, the substituent is derived from polybutene and has an M_n in the range of 800 to 3,000 (para 92, 96, 99-101). Polyisobutene-substituted succinic acylating agent is disclosed in Example A (para 189). Amine reactants include hydroxamines and alkanol amines (para 121-174). The composition contains a co-emulsifier or surfactant typically having a HLB ranging from 1 to about 6 (para 218, claim 30). Supplemental additives may be incorporated in the emulsions of the invention in order to further improve sensitivity, density, strength, rheology, and cost of the final product (para 216). Thickeners used in thickening amounts such as guar gum, polyacrylamine, carboxymethyl or ethyl cellulose, biopolymers, starches, elastomeric materials are used (para 216, claim 29). Although Pollack does not expressly disclose an "oil of lubricating viscosity", it is examiner's position that those oils listed would inherently meet the limitation because Pollack names the same oils and oil types that are present in the current application as oils of lubricating viscosity. Therefore, Pollack anticipates the cited claims.

Art Unit: 1714

7. Claims 1-2, 4-13, 15-16, 18-22, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Filippini (US 2004/0176263) in view of the evidence in The Kirk-Othmer Encyclopedia of Chemical Technology. [The effective filing date used in this rejection is 9/08/03, for embodiment (iii) which does not have support in the patent from which this is a CIP.]

The applied reference has a common inventor/assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Filippini discloses a water in oil emulsion including a (A) solvent, (B) water, and (C) surfactant (abstract). The solvent (A) is present as 1 to 99, or 25 to 85, or 50 to 80% by weight (para 49). The solvent includes toluene, dimethyl adipate, and others (para 48). A diluent such as mineral oil, kerosene, synthetic oil, esters of carboxylic acids, etc are contained as 10-90% by weight (para 137). The water (B) is present as 1 to 99, or 15 to 75, or 20 to 50% by weight (para 52).

The surfactant (C) may be one or more of any surfactants (C)(i) to C(iv) and the concentration is 0.5 to 3% by weight (para 54). The surfactant (C)(vi) may be an ionic or nonionic compound having an HLB in the range of 1 to 40 (para 132). Examples of other surfactants (C)(v) are PEG 200 distearate, PEG 400 distearate, glycerol monooleate, sorbitan trioleate, etc, which have an HLB of 5.0, 7.2, 3.4, 1.8, i.e. HLBs of under 9, respectively (para 125-127) (page 913 of Kirk-Othmer). The emulsifiers include polyisobutene substituted succinic acid, the polyisobutene substituent having an M_n of

Art Unit: 1714

750 to 3000 (para 65). Emulsifiers of the (C)(i) type are a product made from the reaction of an acylating agent with ammonia, an amine, a hydroxylamine (alkanol amines (para 75)), or an alcohol (para 8) wherein acylating agents include carboxylic acids and fatty acids (para 57).

Rheology control agents (i.e. thickeners or viscosity modifiers) such as modified clays, polyacrylates, polymethacrylates, ethylene propylene diene terpolymers are present in a range of up to 5%, or 0.1 to 2% by weight (para 138-145). Additional additives include corrosion inhibitors (para 153-154).

The water-oil emulsion is formed by high or low shear mixing (para 155-156). The mixing may be conducted from 0 to 100, preferably 10 to 50 degrees C (para 156). The emulsion is sprayed on the fixtures to effect the removal of paint, grease, etc, and thus coats or creates a film on the layer before it is to be flushed or removed (para 168).

Although Filippini does not expressly disclose an "oil of lubricating viscosity", it is examiner's position that those oils listed would inherently meet the limitation because Filippini names the same oils and oil types that are present in the current application as oils of lubricating viscosity.

Thus, Filippini anticipates the cited claims.

Claim Rejections - 35 USC § 102/103

8. Claim 3 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Filippini (US 2004/0176263).

Art Unit: 1714

The discussion with respect to Filippini in paragraph 7 above is incorporated herein by reference.

Although Filippini is silent with respect to the Brookfield viscosity using a No 7 spindle at 20 rpm at 25 degrees C of the emulsion, Filippini discloses the Brookfield viscosity of the emulsion using a No. 3 spindle at 10 rpm which is up to 100,000 cP (para 28). Since the applications and emulsion composition therein is substantially similar to the currently claimed emulsion composition, it is examiner's position that although it is not specifically recited, the composition in Filippini would nonetheless inherently meet the requirements for the currently claimed viscosity, or alternatively, would obviously have been present in the Filippini product, absent evidence to the contrary.

Claim Rejections - 35 USC § 103

9. Claims 17, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollack (US 2003/0019552).

The discussion with respect to Pollack in paragraph 6 above is incorporated herein by reference.

Although Pollack does not expressly disclose that the polyisobutene would have an M_n of 2300, he gives a range of 800 to 3,000, which is examiner's position that this range is sufficiently close to, and encompasses, the current value such that it would have been obvious to use any molecular weight in the range, including 2300.

Art Unit: 1714

Pollack also does not disclose the temperature and pressure that the water-oil emulsion would be mixed at, however, it would have been obvious to one of ordinary skill in the art that it would be ambient temperature and pressure because Pollack discloses that the composition is explosive and one would not want to prematurely precipitate an explosion by using excessive heat and/or pressure.

10. Claims 17, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Filippini (US 2004/0176263).

The discussion with respect to Filippini in paragraph 7 above is incorporated herein by reference.

Although Filippini does not expressly disclose that the polyisobutene would have an M_n of 2300, he gives a range of 750 to 3,000, which is examiner's position that this range is sufficiently close to, and encompasses, the current value such that it would have been obvious to use any molecular weight in the range, including 2300.

Filippini also does not disclose the pressure that the water-oil emulsion would be mixed at, however, it would have been obvious to one of ordinary skill in carry out the mixing at ambient pressure since it requires less equipment and costs to use ambient pressure, which is typical of water-oil emulsions.

Art Unit: 1714

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The prior rejections have been withdrawn in view of the amendment to remove the recitation of an HLB equal to 9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SKP

Sandra K. Poulos

Callie E. Shosho
CALLIE E. SHOSHO
PRIMARY EXAMINER